Supplementary Table. 5: Potential difference between Lys73 and Glu166 for a motif from a Class A  $\beta$ -lactamase which now includes the Glu166 for a list of Class A  $\beta$ -lactamase proteins {Ser70, Lys73, Ser130, Lys234, Glu166}, the high potential differences observed are consistent with the theory that Lys73 is protonated in the initial stages, and acts as the general base to Ser70 only after transferring a proton to the Glu166

	PDB id:	2G2U	3BFG	107E	1HTZ	4BLM	2QPN
•	K73/E166	435.4	561.2	441.5	447.3	443.5	362.4